

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

1-15. (Canceled)

16. (New) A mobile fax terminal comprising:

a fax adapter; and

a mobile phone portion connected to the fax adapter via an Internet Protocol (IP)-based interface;

wherein the fax adapter includes:

a fax interface for receiving fax data from a fax machine via standard fax protocols;

a mapping function that maps the fax data onto Transmission Control Protocol (TCP) or User Datagram Protocol (UDP) packets; and

means for sending the mapped data over the IP-based interface to the mobile phone portion; and

wherein the mobile phone portion includes:

a mapping function that maps the TCP or UDP packets received from the fax adapter onto Radio Link Protocol (RLP) frames; and

a radio air interface function that transmits the RLP frames to an external radio telecommunication network.

17. (New) The mobile fax terminal of claim 16, wherein the fax adapter receives the fax data from an external fax machine.

18. (New) The mobile fax terminal of claim 16, wherein the fax adapter and the fax machine are both implemented in the mobile fax terminal.

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19. (New) The mobile fax terminal of claim 16, wherein the fax adapter and the fax machine are both implemented in an Internet Aware Fax Device (IAFD) that connects to the mobile phone portion via the IP-based interface.

20. (New) The mobile fax terminal of claim 16, wherein the fax adapter is implemented through software.

21. (New) A system for providing non-transparent fax services in a mobile network, said system comprising:

a mobile fax terminal comprising:

means for receiving fax data from a fax machine via standard fax protocols;

means for mapping the fax data onto Transmission Control Protocol (TCP) or User Datagram Protocol (UDP) packets;

means for mapping the TCP or UDP packets onto Radio Link Protocol (RLP) frames; and

means for transmitting the RLP frames to an external radio telecommunication network;

an interworking function (IWF) in the network comprising:

means for receiving the RLP frames from the mobile fax terminal;

means for mapping the RLP frames to TCP or UDP packets; and

means for sending the TCP or UDP packets to a fax gateway; and

a fax gateway comprising:

means for receiving the TCP or UDP packets from the IWF;

means for mapping the packets to standard fax data; and

means for sending the fax data to a destination fax machine via standard fax protocols.

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22. (New) A method of providing non-transparent fax services in a mobile network, said method comprising the steps of:

within a mobile fax terminal, performing the steps of:

receiving fax data from a fax machine via standard fax protocols;

mapping the fax data onto Transmission Control Protocol (TCP) or User Datagram Protocol (UDP) packets;

mapping the TCP or UDP packets onto Radio Link Protocol (RLP) frames;

and

transmitting the RLP frames to an external radio telecommunication network.

23. (New) The method of claim 22, further comprising the steps of:

within an interworking function (IWF) in the network, performing the steps of:

receiving the RLP frames from the mobile fax terminal;

mapping the RLP frames to TCP or UDP packets; and

sending the TCP or UDP packets to a fax gateway.

24. (New) The method of claim 23, further comprising the steps of:

within the fax gateway, performing the steps of

receiving the TCP or UDP packets from the IWF;

mapping the packets to standard fax data; and

sending the fax data to a destination fax machine via standard fax protocols.